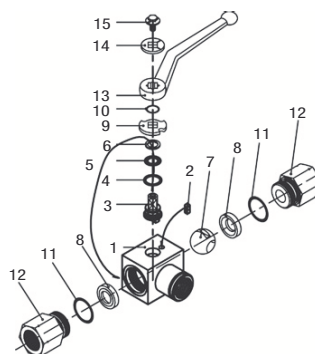


## High-Pressure Block Body Ball Valve - Type CBVL



Pressure inlet possible from center port!



### List of Components

No.	Qty.	Description
1	1	Body
2	1	Stop Pin
3*	1	Stem
4*	1	Thrust Ring
5*	1	Stem O-Ring
6*	1	Stem Back Up Ring
7	1	Ball
8*	2	Ball Seat
9	1	Cam Plate
10	1	Snap Ring
11	2	Connector O-Ring
12	2	Connector
13	1	Handle
14	1	Flow Indicator
15	1	Stem Bolt

\* Included in seal kit

### Characteristics

Compact three-way high-pressure block body ball valves designed for use as three-way selectors (L-bore, 90° operation) for hydraulic applications

#### Standard Construction

- Block body design for in-line assembly
- Compact diverter style
- Supplied with off-set lever

#### Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)  
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FPM (Viton®)

#### Standard Connections Styles / Sizes

- Female BSP thread (DIN ISO 228) >G 2 BSP
- Female NPT thread (ANSI B1.20.1) >2 NPT
- Female UN/UNF thread (SAE J 514) >2-1/2-12 UN (2" SAE)
- 24° cone connection (DIN 2353); Light Series >35L
- 24° cone connection (DIN 2353); Heavy Series >38S

#### Pressure inlet only from the center port!

#### Pressure Range

- Pressure range: up to 500 bar / 7250 PSI (depending on size and material combination of the ball valve)

#### Temperature Range

- Operating temperature range:  
-20 °C ... +100 °C / -4 °F ... +212 °F

#### Options / Accessories

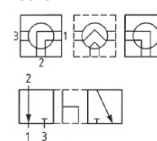
- Alternative lever designs/materials (see page F92)
- Locking devices (see pages F93-95)
- Actuator packages (see page F96)
- Limit switches (see page F96)
- Additional assembling threads / holes (see page F97)
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media

#### Porting Pattern

- Symbol: L
- Overlap: negative
- Operating: 90°

- Stop of end position:

#### 50-CBVL



### Order Codes

**CBVL 3 G 02 0 0 0 1 M - -**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

#### ① Type

Compact High-Pressure Block Body Ball Valve **CBVL**

#### ② Number of Ports

Three Ports (Three-Way Ball Valve) **3**

#### ③ Connection Style

Female BSP Thread (DIN ISO 228)	<b>G</b>
Female NPT Thread (ANSI B1.20.1)	<b>0</b>
Female UN/UNF Thread (SAE J 514)	<b>1</b>
24° Cone Connection (Light / Heavy Series)	
<b>DN04 DN06 DN08 DN10 DN13 DN16 DN20 DN25</b>	

Please consult STAUFF for alternative connection styles.

#### ④ Connection Size

STAUFF Size (according to dimension table) for connection styles G, 0 and 1:										
<b>02</b>	<b>04</b>	<b>06</b>	<b>08</b>	<b>12</b>	<b>16</b>	<b>20</b>	<b>24</b>	<b>32</b>		
Tube Size (according to dimension table) for 24° Cone Connection (Light Series):										
<b>06L</b>	<b>08L</b>	<b>10L</b>	<b>12L</b>	<b>15L</b>	<b>18L</b>	<b>22L</b>	<b>28L</b>	<b>35L</b>		
Tube Size (according to dimension table) for 24° Cone Connection (Heavy Series):										
<b>08S</b>	<b>10S</b>	<b>12S</b>	<b>14S</b>	<b>16S</b>	<b>20S</b>	<b>25S</b>	<b>30S</b>	<b>38S</b>		

Please consult STAUFF for alternative connection sizes.

#### ⑤ Body Material / Surface Finishing

Carbon Steel, zinc/iron-plated	<b>0</b>
Stainless Steel V4A (AISI 316Ti)	<b>1</b>

Alternative materials / surface finishings are available upon request. Consult STAUFF for further information.

#### ⑥ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated	<b>0</b>
Stem: Carbon Steel	<b>0</b>
Ball / Stem: Stainless Steel V4A (AISI 316Ti)	<b>1</b>

Alternative materials / surface finishings are available upon request. Consult STAUFF for further information.

#### ⑦ Ball Seat Material

Delrin® (POM)	<b>0</b>
---------------	----------

Alternative materials are available upon request. Consult STAUFF for further information.

#### ⑧ O-Ring Material

NBR (Buna-N®)	<b>0</b>
FPM (Viton®)	<b>1</b>
EPDM	<b>3</b>

Alternative materials are available upon request. Consult STAUFF for further information.

#### ⑨ Manufacturing Code

Manufacturing code for all connection styles (except Female NPT Thread)	<b>M</b>
Manufacturing code (only for Female NPT Thread)	<b>K</b>

#### ⑩ Lever Options

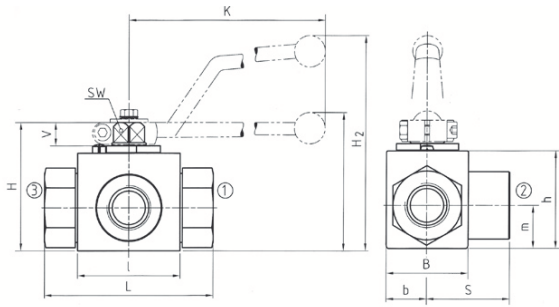
Supplied with standard lever (according to table)	<b>-</b>
Supplied without lever	<b>-0</b>

Alternative levers can be ordered separately. Please see page F92 for further information.

#### ⑪ Accessories / Options

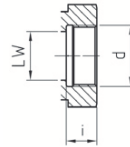
Supplied without accessories	<b>-</b>
Supplied with Locking Device LD1	<b>-LD1</b>
Supplied with Locking Device LD2	<b>-LD2</b>
Supplied with Locking Device LD3	<b>-LD3</b>
Supplied with Locking Device LD4	<b>-LD4</b>
Supplied with Double-Acting Pneumatic Actuator (Please add size **)	<b>-EDA**</b>
Supplied with Single-Acting Pneumatic Actuator (Please add size **)	<b>-ESA**</b>

Please see page F93-F97 for further information and options.



### High-Pressure Block Body Ball Valve - Type CBVL L-Bore Three-Way Selector - Female BSP Thread (DIN ISO 228)

#### Female BSP Thread (DIN ISO 228)



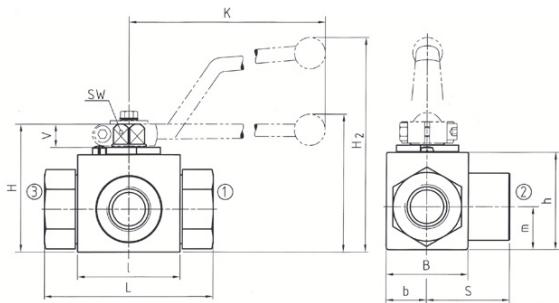
When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)  
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FPM (Viton®)

#### Pressure Inlet only from the Center Port

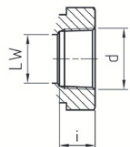
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	b	B	H	h	m	S	V	SW	K	i	H2			
02	G 1/8 BSP	4	5.20	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.453	10.39	82.323	500.7250	0,40.88	CBVL3G020001M
04	G 1/4 BSP	6	6.24	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.453	14.55	82.323	500.7250	0,46.1.01	CBVL3G040001M
06	G 3/8 BSP	10	10.39	72.283	43.169	16.63	35.138	52.205	38.150	17.5.69	36.142	11.43	9.35	115.453	14.55	87.342	500.7250	0,60.1.32	CBVL3G060001M
08	G 1/2 BSP	13	13.51	83.327	48.189	17.5.69	38.150	54.2.13	40.1.57	19.1.63	11.43	9.35	115.453	17.64	89.3.50	500.7250	0,70.1.54	CBVL3G080001M	
12	G 3/4 BSP	20	20.79	95.374	62.244	24.5.96	52.2.05	75.2.95	57.2.24	24.5.96	47.5.187	14.55	14.55	170.6.69	18.71	126.4.96	315.4500	1,80.3.96	CBVL3G120001M
16	G 1 BSP	25	25.113	113.66	66.29	29.61	83.65	83.65	65.29.5	29.5.56	14.14	170.20	134.315	201.315	201.315	315.315	4500.4500	5.28.2.40	CBVL3G160001M
20	G 1-1/4 BSP	32	30.118	111.437	81.319	39.1.54	106.4.17	84.5.3.33	39.1.54	39.1.54	55.2.17	16.5.67	17.67	320.12.60	22.87	170.6.69	350.5000	3.80.8.36	CBVL3G200001M
24	G 1-1/2 BSP	40	38.130	130.104	104.53	53.2.09	127.5.00	106.4.17	53.65	65.2.17	16.5.67	17.67	320.12.60	24.94	191.7.52	350.5000	6.20.13.64	CBVL3G240001M	
32	G 2 BSP	50	48.189	150.5.91	118.4.65	58.2.28	116.4.57	137.5.39	116.4.57	75.2.28	16.5.65	17.67	320.12.60	26.1.02	201.7.91	350.5000	7.80.17.16	CBVL3G320001M	

Please note the pressure ratings of the tube connections.



### High-Pressure Block Body Ball Valve - Type CBVL L-Bore Three-Way Selector - Female NPT Thread (ANSI B1.20.1)

#### Female NPT Thread (ANSI B1.20.1)



When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)  
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FPM (Viton®)

#### Pressure Inlet only from the Center Port

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	b	B	H	h	K	S	V	SW	K	i	H2			
02	1/8 NPT	4	5.20	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.453	10.5.41	82.323	500.7250	0,40.88	CBVL30020001K
04	1/4 NPT	6	6.24	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.453	13.7.54	82.323	500.7250	0,46.1.01	CBVL30040001K
06	3/8 NPT	10	10.39	72.283	43.169	16.63	35.138	52.205	38.150	17.5.69	36.142	11.43	9.35	115.453	13.5.3.42	87.342	500.7250	0,60.1.32	CBVL30060001K
08	1/2 NPT	13	13.51	83.327	48.189	17.5.69	38.150	54.2.13	40.1.57	19.1.63	11.43	9.35	115.453	17.67	89.3.50	500.7250	0,70.1.54	CBVL30080001K	
12	3/4 NPT	20	20.79	95.374	62.244	24.5.96	52.2.05	75.2.95	57.2.24	24.5.96	47.5.187	14.55	14.55	170.6.69	18.72	126.4.96	315.4500	1,80.3.96	CBVL30120001K
16	1 NPT	25	25.113	113.66	66.29	29.61	83.65	83.65	65.29.5	29.5.56	14.14	170.21.6	134.315	201.315	201.315	315.315	4500.4500	5.28.2.40	CBVL30160001K
20	1-1/4 NPT	32	30.120	120.81	81.39	39.1.54	106.4.17	84.5.3.33	39.1.54	39.1.54	55.2.17	16.5.67	17.67	320.12.60	22.1.87	170.6.69	350.5000	3.80.8.36	CBVL30200001K
24	1-1/2 NPT	40	38.140	140.104	104.53	53.2.09	127.5.00	106.4.17	53.65	65.2.17	16.5.67	17.67	320.12.60	22.1.87	191.7.52	350.5000	6.20.13.64	CBVL30240001K	
32	2 NPT	50	48.189	150.5.91	118.4.65	58.2.28	116.4.57	137.5.39	116.4.57	75.2.28	16.5.65	17.67	320.12.60	30.2.1.19	201.7.91	350.5000	7.80.17.16	CBVL30320001K	

Please note the pressure ratings of the tube connections.